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09/990,381	11/23/2001	Loki Jorgenson	J141 0003 GNM/SKS	2857
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FISH & RICHARDSON, PC			GREY, CHRISTOPHER P	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/990,381

Applicant(s)

JORGENSEN, LOKI

Examiner

Christopher P. Grey

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2007.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-70 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 26, 27, 29, 30, 37-40, 42-46, 55, 56 and 61-70 is/are rejected.
- 7) ☒ Claim(s) 5-25, 28, 31-36, 41, 47-54 and 57-60 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

1. Claims 1-4, 26, 27, 29, 37, 38, 42-46, 55, 56, 61- 70 are rejected under 35 U.S.C. 102(e) as being anticipated by Gregson (US 7072305).

Claim 1, 37, 45, 56 Gregson discloses providing a plurality of example signatures indicative of a plurality of specific network conditions (**Col 5 line 30-35, baseline; packet loss and latency are equivalent to a plurality of network conditions**), each of the example signatures including information indicative of a specific and different network condition (**Col 5 lines 31-35, packet loss and latency are two different conditions**), and at least a part of one or more example signatures indicative of one or more of packet loss, packet ordering and packet timings (**Col 5 lines 33-36**), wherein

each specific network condition causes a unique behavior directly indicative of data transmission performance in the computer network (**Col 5 lines 39-40, trigger an alert of a potential or actual problem**).

Gregson discloses acquiring test data (**Col 7 lines 24-25**), which test data, is based on actual propagation of test packets (**Col 7 lines 12-13, predetermined streams of data**) along the path.

Gregson discloses creating a test signature from the test data, said test signature being an organized collection of information obtained from said test data (**Col 7 lines 24-25**), and at least a part of said test signature indicative of one or more of packet loss, packet ordering and packet timings (**Col 7 line 26**).

Gregson discloses comparing the test signature to the example signatures (**Col 7 lines 26-28**).

Gregson discloses identifying at least one of the example signatures which match the test signature according to a match criterion (**Col 5 lines 36-37, packet loss or latency that exceeds a threshold**), wherein said identifying determines at least one of said plurality of specific network conditions which is affecting the computer network (**Col 5 lines 39-40**).

Claim 2 Gregson discloses comparing the test signature to the example signature comprising computing a similarity measure between the test signature and each of the example signatures (**Col 5 lines 36-42, exceeding a threshold level by a predetermined percentage**).

Claim 3 Gregson discloses the test signature comprising a plurality of values (**Col 5 lines 34-35, packet loss and/or latency**).

Gregson discloses the test signature comprising a set of corresponding values (**infinity**) and,

Gregson discloses computing the similarity measure between the test signature and an example signature comprising computing a fit between each of the test (**Col 5 lines 36-39, a packet loss and/or latency that exceeds a threshold is equivalent to a packet loss or latency being b/w the threshold and infinity**).

Claim 4 Gregson discloses evaluating a predetermined percentage exceeding a threshold where that predetermined percentage may be considered a function. Furthermore, Gregson discloses the baseline being a function of time (**Col 5 lines 33-36**).

Claim 26 Gregson discloses acquiring test data (**Col 7 lines 24-25**) which test data is based on actual propagation of test packets (**Col 7 lines 12-13, predetermined streams of data**) along the path.

Claim 27 Gregson discloses wherein the test signature comprises one or more packet loss statistics for the datagrams (col 5 lines 33-35).

Claim 29 Gregson discloses the path being between two analyzer units (**see fig 1, 120 and 110**), where those analyzers may be placed in positions where it is desired to analyze the network such as that in a closed path.

Claim 38 Gregson discloses wherein the means for identifying at least one of the example signatures, which matches the test signature, comprises an expert system and

a rule base (**Col 5 lines 36-37, threshold level is equivalent to a rule, and the fact that the analyzer units perform a number of functions makes it equivalent to an expert system**).

Claim 44 Gregson discloses wherein means for comparing the test signature to the example signature comprises a neural network (**Col 6 lines 43-44**).

Claim 46 Gregson discloses a number of analyzer units and an NOC (see fig 1) for determining a communication performance, where inherently software exists within the NOC for performing a number of functions.

Claim 55 Gregson discloses a packet loss being 20 percent of the baseline, where that 20 percent is equivalent to a coefficient (**Col 7 line 42**).

Claim 61 Gregson discloses wherein the test data comprises information regarding one or more of connectivity, maximum transmission unit, network device responsivity and time for test packets to traverse the path (**Col 5 line 36, packet latency**).

Claim 62 Gregson discloses wherein the test data comprises information regarding one or more of lost packet (**Col 5 line 36, packet loss**); final interspaced separation, hop number, hop address, measured MTU, reported MTU, error flag and information relating to the packet bursts prior to sending along the path.

Claim 63 Gregson discloses wherein test data comprises information regarding derivatives of said information (**Col 6 lines 36-37, average packet loss**).

Claim 64 Gregson discloses wherein the test signature comprises one or more functions, the one or more functions relating to one or more of packet loss statistics (**Col**

5 lines 33-36) packet loss as a function of time), round trip time and final inter packet spacing.

Claim 65 Gregson discloses wherein the test signature comprises one or more higher order functions derived from said one or more function (**Col 6 lines 36-37, average packet loss**).

Claim 66 Gregson discloses wherein one or more of the test packets are formatted using the TCP protocol or UDP protocol (**Col 4 lines 59-63**).

Claim 67 Gregson discloses wherein the one or more test packets formatted using TCP or UDP protocol are returned from an end host by software or hardware (Col 7 lines 12-13).

Claim 68 Gregson discloses wherein the test signature (**Col 7 lines 24-25**) comprises packet loss statistics derived from the one or more of the test packets (**Col 7 lines 25-27**) formatted using TCP protocol or UDP protocol.

Claim 69 Gregson discloses the path is an open path wherein test packets are sent from one location and received at a different location (**Col 7 lines 12-14**).

Claim 70 Gregson discloses wherein the test signature comprises packet loss statistics (**Col 5 line 36, packet loss**).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 30, 39 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gregson (US 7072305) in view of Aoki et al. (US 6757255), hereinafter referred to as Aoki

Claim 30, 39 and 40 Gregson does not specifically disclose the packet comprising an ICMP ECHO packet.

Gregson discloses determining communications performance using an ICMP ECHO request (Col 12 lines 32-33).

It would have been obvious to one of the ordinary skill in the art at the time of the invention that the performance measuring method as disclosed by Gregson may be modified to apply ICMP echo packets as disclosed by Aoki. The motivation for this modification is to pass information from one device to another.

Allowable Subject Matter

3. Claims 5-25, 28, 31-36, 41, 47-54, 57-60 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

4. Applicant's arguments with respect to claims 1,37,45 and 56 have been considered but are moot in view of the new ground(s) of rejection.

(a) In response to the applicant's arguments stating that Gregson does not disclose a plurality of threshold values (page 27 of arguments), the examiner maintains that Gregson discloses baselines and thresholds for packet loss and latency (plurality). It is unclear to the examiner how and why the applicant fails to acknowledge that packet loss and latency as described by Gregson are equivalent to a plurality of network conditions.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

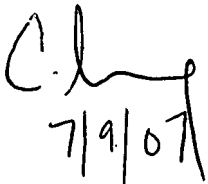
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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher P. Grey whose telephone number is (571)272-3160. The examiner can normally be reached on 10AM-7:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on (571)272-7629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Christopher Grey
Examiner
Art Unit 2616



7/9/07



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